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EDITORIAL COMMENT

Lessons from ProACS: It's time for the phoenix to rise from the ashes

As lições do ProACS: É chegado o tempo da Fénix renascer das cinzas

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Registries are of crucial importance to unravel the natural history of diseases, identify patterns of management and treatment, enable the continuous improvement of quality standards, and help identify prognostic factors. The latter then have to be validated in external cohorts before their widespread acceptance and use.

In acute coronary syndromes (ACS), several large-scale registries (some national like the NCDR ACTION Registry-GWTG[1] and SWEDEHEART,[2] and others multinational like the Global Registry of Acute Coronary Events (GRACE)[3] and the Euro Heart Survey on acute coronary syndromes[4]) have identified important prognostic factors and helped in the development of widely used risk scores.[5] However, few Portuguese patients were included in the Euro Heart Survey, calling into question its validity in our population.

The study by Almeida et al. published in this issue of the *Journal*[6] used data on consecutive ST-elevation myocardial infarction (STEMI) patients entered in the Portuguese Registry of Acute Coronary Syndromes (ProACS) between 2010 and 2019 to assess the prognostic value of in-hospital brain natriuretic peptide (BNP) levels in the prediction of all-cause mortality and rehospitalization for cardiovascular causes. BNP levels in the highest tertile were associated with older age, greater cardiovascular burden and comorbidities, and higher rates of in-hospital complications and mortality. Higher BNP levels were also independent predictors of one-year all-cause mortality and rehospitalization for cardiovascular causes in patients with STEMI. These results validate the prognostic importance of natriuretic peptides in a Portuguese cohort and reinforce the recommendation in the 2020 European Society of Cardiology guidelines on non-ST-elevation ACS for its use for prognostic purposes.[7]

However, there are several limitations that make these results less robust. Firstly, BNP was measured at different time points during hospitalization, compromising its value as a predictor of in-hospital and early events. Moreover, information on left ventricular function, coronary anatomy, and BNP was available for only 20.5% of the 8036 consecutive STEMI patients included, and of these only 78% had one-year follow-up. And here resides the major caveat of ProACS. The validity of a registry depends not only on the rigorous collection of relevant data, but also on the widespread adherence of clinicians and the completeness of the data.

ProACS is a continuous, prospective, and voluntary registry that started in 2002 and is the longest-running active registry in Portugal, including nearly 70 000 events to date. It

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aims to characterize patients and diagnostic and therapeutic approaches to ACS in Portugal, to monitor adherence to clinical guidelines and recommended timings, and to assess the impact of implementing specific recommendations.[8]

In recent years, ProACS has relied on the participation of a limited number of centers that may not reflect national diversity in practices and timely access to reperfusion.[9] Furthermore, missing information and incomplete follow-up have been detrimental to its validity and use as a tool for quality programs and research in this field.

It is time to acknowledge the critical importance of ProACS in the implementation of performance measures and planning of nationwide interventions that can change the landscape of ACS treatment in Portugal. Following in the footsteps of registries in other important areas such as oncology,[10] and quality initiatives from other cardiology societies such as the Spanish Society of Cardiology,[11] the Portuguese cardiology community should advocate for the universal, nationwide, and compulsory nature of this registry. Let's make this phoenix rise again from the ashes.

Conflicts of interest

The author has no conflicts of interest to declare.

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